



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION III  
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JUL 06 2018

Mr. David Stewart, P.E., BCEEE  
Director of Engineering  
Capital Region Water  
212 Locust Street, Suite 500  
Harrisburg, Pennsylvania 17101

RE: U. S and PADEP v. Capital Region Water and City of Harrisburg  
Civil Action No. 1:15-cv-00291-WWC

Dear Mr. Stewart:

The Environmental Protection Agency (EPA) received the Capital Region Water's (CRW) City Beautiful H2O Program Plan Long Term Control Plan (LTCP or Plan), dated March 29, 2018. The Partial Consent Decree (PCD) at Section V. E., Paragraph 14 requires CRW to submit for review and approval a revised and updated LTCP that conforms to the requirements of EPA's 1994 CSO Control Policy (CSO Policy) and Guidance for Long Term Control Plan, as well as additional guidance on green infrastructure and integrated planning. EPA has reviewed the LTCP and concludes that it does not comply with the requirements specified in the PCD, and therefore the submission is disapproved. In fact, Section 11.5 of the LTCP specifically acknowledges that the proposed LTCP will not result in compliance with the CSO Policy and the Clean Water Act (CWA), noting that "CRW does not expect to achieve compliance with water quality objectives for designated uses." As such, in accordance with Section X of the PCD, CRW has failed to comply with the PCD and is potentially subject to stipulated penalties for such failure.

In accordance with the PCD, Paragraph 37.d., CRW has forty-five days to correct the deficiencies identified in the attached Comments. Under the PCD, if the resubmittal is disapproved in whole or in part, EPA may itself correct any deficiencies and require CRW to implement the corrected submission, subject to the CRW's right to invoke Dispute Resolution and the right of EPA to seek stipulated penalties. See Paragraph 37.f. ii.

Specific comments and requests for response are set forth in the attached Comments.

CRW's failure to comply with the terms of the PCD are demonstrated primarily by: 1) CRW has selected the Presumption Approach for achievement of water quality standards (WQS), using the 85



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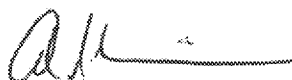
percent capture criterion, yet, on its face, the selected alternative would not meet WQS and would only achieve 80 percent capture after the 20 year completion of the LTCP; 2) CRW has considered a limited number of CSO control alternatives, failing to even identify the specific projects proposed to be completed, along with associated costs; and 3) CRW has failed to complete a Financial Capability Assessment (FCA) that complies with the PCD (Paragraph 18) as noted previously in EPA's September 9, 2016 letter to CRW (see attached). These are major deficiencies.

Both the Pennsylvania Department of Environmental Protection (PADEP) and EPA are fully aware of the extensive deferred maintenance of the Harrisburg wastewater system and understand the need to address this as part of the remediation of the system. CRW's proposed measures would focus on this remediation in the first 10 years, to achieve 79 percent capture by year 10 (from the current 53 percent capture level). Arguably, these are proposed measures that are covered under the Nine Minimum Controls (e.g., regulator upgrades). Measures proposed to occur between years 10 and 20 would result in only a one percent additional increase in CSO capture. This is unacceptable. CRW is proposing a Plan that focuses on system rehabilitation with only a limited amount of CSO control measures. Under the proposed LTCP, several CSOs appear likely to remain active 30 to 50 or even more times per typical year, which cannot possibly result in the achievement of WQS.

The selected CSO controls set forth in the LTCP must be designed to meet the overarching goals of bringing all CSO discharge points into full compliance with the technology-based and water quality-based requirements of the CWA and minimizing the impacts of CSOs on water quality, aquatic biota and human health. Available CSO control technologies are not intended to be limited by cost. CRW must identify and adequately evaluate an appropriately broad range of technically feasible CSO controls regardless of the cost of each. The FCA serves to help establish an appropriate CSO control implementation schedule.

As noted above, CRW must provide responses to the attached Comments and correct the deficiencies in its LTCP, including a revised FCA within 45 days of receipt of this letter. If CRW would like to discuss EPA's comments or if you have any questions or comments, please contact Steve Maslowski, of my staff, at (215) 814-2371.

Sincerely,



Andrew D. Dinsmore, Chief  
NPDES Enforcement Branch  
Water Protection Division

Enclosures:

cc: Maria D. Bebenek, PADEP  
Nancy Flickinger, U.S. DOJ  
Deane Bartlett, EPA ORC  
Chrisna Baptista, EPA OECA

## EPA Comments

### Review of Capital Region Water's "City Beautiful H2O Program Plan", Long Term Control Plan, April 1, 2018

1. Executive Summary highlights the City of Harrisburg's (City) financial challenges (see pages ES-1 and 2). While the City is acknowledged to have significant financial challenges, recent metrics such as unemployment and median household income (MHI) have displayed encouraging trends over the last year or two.<sup>1</sup>
2. Section 1.2.1 presents an example of Capital Region Water's (CRW) existing combined sewer overflows (CSO) warning signs. The sign does not appear to clearly indicate that the discharge contains untreated sewage or poses a health risk, as it should. The font in the example needs to be changed to be easily read from a reasonable distance.
3. Section 1.3.1 describes CRW's service area. This section notes that CRW has the following suburban communities as wholesale customers:
  - Lower Paxton Township
  - Paxtang Borough
  - Penbrook Borough
  - Steelton Borough
  - Susquehanna Borough
  - Swartara Township

Together, these communities have a total population of approximately 106,000, as compared to the City of Harrisburg's population of approximately 49,000. CRW does not provide service to 100% of each of the above communities; however, it appears that CRW provides wastewater treatment for at least 70,000 persons in those wholesale communities.<sup>2</sup>

4. Section 1.4.5 discusses hydraulic capacity problems in the Spring Creek Interceptor. The Plan notes that sanitary sewer overflows (SSOs) may occur from this interceptor, that "over 90 percent of the flow in the Spring Creek interceptor is generated by the suburban communities," and furthermore that a "regional/intermunicipal solution is needed for the Program Plan." CRW provides no indication that it is actively pursuing such a regional solution to wet weather flows. As discussed elsewhere, CRW has instead assumed that CSO control is solely the City of Harrisburg's responsibility. The Partial Consent Decree (PCD) requires CRW to consider system-wide controls and EPA's Financial Capability Assessment (FCA) Guidance requires CRW to consider its entire service area, even if it encompasses multiple jurisdictions. Describe CRW's efforts working with the suburban communities to develop a regional wet weather flow plan.

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<sup>1</sup> In particular, the U.S. census reports that Harrisburg city unemployment dropped from 16.8% to 14.3% from 2015 to 2016. See <https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF>

<sup>2</sup> Source: [uswaterallinace.org](http://uswaterallinace.org)

5. Section 1.8.2 presents an overview of the systemwide control strategies considered by CRW. The description of Systemwide Strategy 2 highlights the construction of a deep tunnel. Many controls evaluated by CRW, including this one, use what appears to be an unnecessarily large “minimum feasible size.” In this case, CRW determines that a 14 million-gallon (MG) tunnel represents the smallest feasible control level. Such a determination has the effect of ensuring that a control strategy is technically or physically “infeasible.” given CRW’s determined level of affordability.<sup>3</sup> CRW should reevaluate use of this potential control.
6. Table 1-3 summarizes the limited amount of green infrastructure (GI)<sup>4</sup> that CRW proposes to implement within the proposed 20-year Plan. Note that the City-wide Cumulative GI Implementation target of 3% of the impervious area is only 66 acres,
7. Section 1.9.2 discusses CRW’s proposed adaptive management process. CRW is proposing “decision points” at 10 years, 15 years, and perhaps 20 years at which Plan adjustments may be made. The degree to which CRW anticipates EPA and PADEP reviewing and approving such adjustments needs to be addressed. Since CRW’s current Plan is inadequate, EPA recommends that the Adaptive Management Plan be submitted every five years.
8. Public Participation: Section 1.2.1 describes CRW’s public involvement efforts in support of release of the plan, specifically three public meetings with a total of only 29 attendees at the three meetings. Section 2 describes CRW’s public engagement/participation efforts in more detail. It is noted that CRW did convene a stakeholder committee; however, it appears that only a limited number of meetings took place beginning in mid-2017, which is far too late in the LTCP development process. EPA suggests CRW engage the public again before submitting its revised LTCP.
9. Section 3.2.3 notes that both the Front Street and Spring Creek Pump Stations are “over 50 years old, and have exceeded its service lives, and in need of significant remedial maintenance and reconstruction.” Rehabilitation and upgrading of both stations are identified as Baseline Control Level projects. CRW must explain how the upgrades to the pump stations will contribute to CSO reduction in addition to being one of the Nine Minimum Controls (NMCs).
10. Section 4 presents a discussion of CRW’s problem analysis and priorities. It appears that CRW is prioritizing asset management issues rather than CSO control and SSO elimination needs.
11. Figures 4-1 and 4-2 illustrate predicted peak typical year hydraulic grade lines (HGLs) compared to CSO weir elevations along the Front Street Interceptor and the Paxton Creek Interceptor, respectively. These figures illustrate how many weirs are at low elevations,

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<sup>3</sup> Which, as noted in Comment #4 above, is based upon inappropriate application of the FCA methodology.

<sup>4</sup> Note that CRW also refers to GI as Green Stormwater Infrastructure, or “GSI”

relative to their interceptor invert, and these interceptors need to be candidates for weir height increases.

12. Section 4.3.2 presents individual CSO regulators' current performance statistics. Overall combined sewage percent capture is identified as 53%. CRW must clarify and confirm exactly how it is calculating percent capture, and how combined flow is defined and calculated.
13. If CRW's draft LTCP were to be fully implemented as-is, the system would still have 30 to 50 CSO overflows in a typical year. Bacteria can be persistent in the environment as it does not wash down stream after a wet weather event. All bacteria, including fecal indicators such as *Escherichia coli* (*E. coli*) or enterococci, possess the ability to attach to inorganic and organic surfaces such as rocks, pipes, or other surfaces. After attachment, sessile bacteria may excrete a slime coating and create what is known as a protective biofilm. Biofilms can pose a significant health risk and the Centers for Disease Control and Prevention estimate that 65 percent of human bacterial infections involve biofilms. Because of the protective nature of biofilms, approximately 1,500 times more of an antimicrobial agent can be required to kill bacteria within biofilm than planktonic bacteria.<sup>5</sup>
14. Tables 4-8 and 4-9 present statistics regarding the number of trunk sewer manholes in the CRW combined system that are currently subject to surcharge in one-year through 10-year design storms. Table 4-9 suggests almost 100 manholes may experience overflows in storms as small as the one-year event. CRW should consider more to address this issue in the manholes' associated sewer segments to decrease the number of manhole overflows.
15. Table 4-11 provides statistics regarding the number of manholes in the CRW separate system that are currently subject to surcharge in one-year through 10-year design storms. Table 4-11 suggests that a limited number of manholes may experience overflows in storms two-year frequency or larger. CRW should consider more to address this issue in the manholes' associated sewer segments to decrease the number of manhole overflows.
16. Section 4.6.1 discusses existing water quality issues. Table 4-13 presents designated use attainment status information, but it should more clearly identify the current attainment status, by waterbody segment number. CRW must clearly identify all individual water quality parameters for which standard exceedances have occurred in each receiving water.
17. Section 4.6.5 discusses pollutants of concern (PoC). CRW has identified the following PoCs:
  - Susquehanna River – Bacteria
  - Paxton Creek – Sediment, Bacteria, Dissolved Oxygen/BOD

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<sup>5</sup> Fecal-Indicator Bacteria and Protocols for Identification of Fecal-Pollution Sources, USGS, 2006.

- Unnamed Tributary, Spring Creek - Sediment, Nitrogen/Phosphorus
- Chesapeake Bay – Sediment, Nitrogen/Phosphorus

The identification of PoCs must be based upon the consideration of all pollutants found to be in exceedance of applicable water quality standards. As noted above, it is not clear that CRW has considered all such pollutants. Having noted that, the identification of bacteria in the Susquehanna and sediment, bacteria, and DO/BOD in Paxton Creek (the two waters directly receiving CRW's CSO discharges) appears to be appropriate. CRW must confirm it has identified all PoCs for the Susquehanna River and Paxton Creek.

18. Section 4.6.6 summarizes CRW's Sensitive Area and priority area findings. CRW identifies no Sensitive Areas or priority areas, despite contact recreation in the Susquehanna River, primarily from City Island. CRW notes that the River's cross section and the resulting flow patterns in the River prevent significant cross-river mixing.<sup>6</sup> EPA has observed kayakers in the Susquehanna River adjacent to the Front Street Pump Station. CRW failed to provide information demonstrating that swimmers and kayak users from City Island do not venture towards the River's west bank and its CSO's discharge plumes.
19. Section 6 identifies and discusses a list of CSO control technologies. One conveyance technology included is sewer rehabilitation. Sewer rehabilitation is primarily an asset management technology rather than a CSO control technology. Except in limited circumstances,<sup>7</sup> sewer rehabilitation has limited effectiveness in reducing CSO discharge volumes or impacts. As noted above, CRW has proposed to spend a significant amount of the total dollars that it characterizes as affordable on collection system and Advanced Wastewater Treatment Facility (AWTF) rehabilitation. CRW has suggested that much of this rehabilitation expenditure will serve both purposes; however, CRW must provide support for that assertion.
20. Section 6 also includes in-stream storage and a group of "receiving water" technologies.<sup>8</sup> In-stream storage is technically possible in a limited number of cases; however, regulatory and public acceptance challenges make this technology rarely worthy of serious consideration. The "receiving water" technologies may prove useful in addressing existing receiving water issues; however, they generally do not directly provide CSO control benefits. CRW did not consider offline storage like box culverts. Box culverts are good controls for CSO system with high frequency low volume overflows like the Harrisburg system. The LTCP must be revised to include evaluation of offline storage controls, such as box culverts.
21. Section 7 presents CRW's FCA. CRW has confined its FCA to the City of Harrisburg. In applying costs to the City, CRW has apportioned rehabilitation costs to its wholesale

<sup>6</sup> CRW cites the 2016 Pennsylvania Integrated Water Quality and Assessment Report.

<sup>7</sup> Such as bottlenecks caused by serious structural problems or extremely high infiltration rates (often in riparian zones).

<sup>8</sup> Side stream aeration, instream aeration, stream cleanup/maintenance, plunge pool removal, constructed wetlands, invasive species management, reforestation.

customers; however, CRW has assumed that the City will bear the CSO control costs and has utilized the City's mean household income (MHI), rather than that of the entire service area. This is significant, as wholesale customers make up roughly more than half of the service population and the service area MHI appears significantly higher than the City's (see Figure 7-5). CRW must respond to EPA's letter dated September 9, 2016 and submit an FCA which follows EPA's Guidance for Financial Capability Assessment and Schedule Development, dated February 1997, and the requirements of Section V.E. of the PCD. CRW must also incorporate all current and projected costs for all satellite customers for whom they collect wastewater.

22. Section 8.1 identifies the control objectives (levels of control or "LoCs") that were the focus of CRW's alternative analysis:

- Baseline LoC – Based upon an optimization of the existing collection system and AWTF.
- Affordable LoC – Based upon an allocation of the total dollars CRW has determined to be affordable.
- Cost-effective LoC – Based upon a knee-of-the-curve analysis, with costs including the allocated rehabilitation costs, as discussed above.
- Presumptive LoC – Based upon the achievement of 85% capture systemwide.<sup>9</sup>

It should be noted that the first three LoCs do not target specific performance levels, such as numbers of overflows per year, but instead are based upon primarily cost criteria. As such, the foundation of CRW's alternative analysis is not consistent with the CSO Control Policy's requirement to consider a range of control levels based upon performance metrics, such as number of activations or percent capture. Nor is it consistent with the PCD, which states that the alternatives analysis is not intended to consider cost. It is noted that CRW has presented performance and cost information for alternatives in addition to those identified for the control objectives (for example, see Figure 8.3-2); however, in several cases the sizing of these additional measures appears to have been somewhat random.

23. Section 8 presents cost estimates for both systemwide and Planning Area-specific controls and utilizes those costs to assess the affordability of various LoCs. These costs appear to be based largely upon the City of Philadelphia's 2009 cost document,<sup>10</sup> except for GI costs that were based upon a later Philadelphia document.<sup>11</sup> CRW notes that costs were updated using the Engineering News Record Construction Cost Index and adjusted to the Harrisburg area using the RS Mean factor for Harrisburg. Costs for certain technologies are inflated, for example, storage basins are costed on a per-unit basis. CRW must provide additional detailed breakdowns regarding the systemwide and Planning Area alternatives cost estimates.

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<sup>9</sup> However, the focus of the percent control evaluation was on the individual "Planning Areas" within Harrisburg.

<sup>10</sup> Philadelphia Water Department, *Philadelphia Combined Sewer Overflow Long Term Control Plan Update Supplemental Documentation Volume 3 Basis of Cost Opinions*, 2009. See Appendix 3

<sup>11</sup> Philadelphia Water Department, *Pilot Program Report*, 2016

24. Section 8.3.1 presents the results for CRW's first of two systemwide control strategies. The first strategy is based upon increasing conveyance and treatment capacity at the AWTF. One alternative that should be evaluated is treatment capacity at the third control point (see Section 8.3.1.1). This strategy would double total system conveyance and treatment (through primary treatment) capacity to 240 million gallons per day (MGD). It would result in an 86% capture, as well as CSO activations ranging from 0 to a maximum of 15 times in the typical year. The opinion of probable present value cost for this option is \$431 million. CRW must provide a more detailed breakdown of this cost opinion, as it is assumed that it achieves the addition of primary capacity via conventional primary clarifiers. Substitution of either an earthen storage basin or an alternative treatment technology (such as cloth media disk filters) should be considered, as it might allow for a meaningful reduction in cost at the same performance level point.
25. Section 8.3.2 presents the results for CRW's second of two systemwide control strategies. The second strategy is based upon deep tunnel storage/conveyance. Only two tunnel lengths were examined (30,000 feet and 45,000 feet) and two diameters considered (10 foot and 15 foot). Tunnel volumes ranged from 14 MG to 64 MG. Additional options, including a hybrid option that combines a single tunnel with other controls, or shorter storage tunnels that target a limited number of the largest CSOs (such as CSOs 8, 9, 50, 51, and 48), should be considered.
26. Section 8.4 presents the localized control strategy results, with those for each Planning Area presented in a separate section.
- a. In each Planning Area section, CRW summarizes the Baseline LoC Improvements to be implemented with the planning area (e.g., Table 8.4.1-2 for Riverside). These tables provide estimated unit baseline implementation costs in \$/1,000 MG (presumably that is \$/1,000 MG/typical year). It appears that only the in-area specific costs are included in these tables (one of which is presented in each Planning Area section), but not the apportioned collection system and AWTF costs. Later in each section, CRW notes how those area-specific costs are included in that area's apportioned piece of the overall Baseline LoC cost. CRW must provide a summary table for each of the four LoC's illustrating how the Planning Area costs for each LoC "fit" together.
  - b. Areas of opportunity for GI are identified on maps of each CSO Planning Area. Estimated costs are provided for each Planning Area for CRW's "Baseline," "Affordable," and "Presumptive" LoCs. CRW must provide additional information regarding the GI assumptions (such as type(s) of GI assumed and the general design characteristics of each type of GI) used in each Planning Area to generate these costs.
  - c. Table 8.4.1- 2 and the equivalent tables in the other Planning Area sections illustrate how CRW's Baseline LoC does not achieve a consistent percent capture or activation frequency across the individual CSOs within a given Planning Area.



In the case of Riverside, CSO S-004 achieves a capture of 84% and 24 activations, while CSO S-005 achieves an 87% capture and 16 overflows. At the Baseline LoC, the most frequent activation in each CSO Planning Area is as follows:

- Riverside – 24/typical year (CSO-004)
- Uptown – 51/typical year (CSO-010 & CSO-011)
- Middle Front Street – 34/typical year (CSO-052)
- Lower Front Street – 39/typical year (CSO-057)
- Upper Paxton Creek West – 30/typical year (CSO-027 & CSO-028)
- Upper Paxton Creek East – 15/typical year (CSO-026)
- Middle Paxton Creek West – 57/typical year (CSO-032)
- Middle Paxton Creek East – 41/typical year (CSO-034)
- Lower Paxton Creek – 55/typical year (CSO-048)
- Hemlock Street – 34/typical year (CSO-060)

CRW provides an average activation frequency, in the case of the Riverside Planning Area 20 activations per typical year. However, an average activation frequency is not a useful metric. The activation rate for a waterbody or a portion of a waterbody is the number of times one or more CSOs activate.

CRW does discuss the possibility of implementing additional measures in many of the Planning Areas (see further discussion below). However, given the likely limited magnitude of such additional measures and the lack of certainty regarding their implementation, it appears that the activation frequencies predicted for the Baseline LoC are least representative of what might be achieved by CRW's proposed Plan. CRW should re-evaluate its activation frequencies.

d. In each Planning Area, CRW considered three Local Control Strategies:

- Local Control Strategy 1: Decentralized GI and/or Grey Infrastructure Controls
- Local Control Strategy 2: Satellite Storage and/or Treatment
- Local Control Strategy 3: Combined Sewer Separation

If a given Planning Area achieved an average Presumptive LoC of 85% by implementation of the Baseline LoC, CRW generally determined that additional CSO control was a low priority within the proposed 20-year planning horizon, especially since two of the CSO catchment areas are predicted to remain very active. This is inappropriate given bacteria as a pollutant of concern in both direct receiving waters and the 1994 CSO Control Policy requires the presumption be reasonable that 85% capture will result in meeting the water quality-based requirements of the CWA.

- e. In several Planning Areas, CRW identifies “minimum feasible” sizes for high rate treatment or storage facilities. CRW does not adequately explain why the identified sizes are the minimum sizes that are “feasible,” and must do so.
  - f. Section 8.4.15 discusses the separate Spring Creek Planning Area. The Plan notes that “approximately 94% of the tributary area and over 90% of the dry and wet weather flows into and through CRW’s Spring Creek Interceptor” are generated by CRW’s wholesale customers. The Plan notes that both the Spring Creek Interceptor capacity and Spring Creek Pump Station capacity are exceeded in the 2-year storm event and that SSOs are predicted to occur. CRW must provide additional information regarding the magnitude of the flows from this interceptor during the typical year to provide a better understanding of the degree to which wet weather flows from the wholesale customers impact the combined sewer system’s typical year performance.
27. Section 8.5.1 describes CRW’s analysis of alternatives for bypassing at its AWTF. CRW should also consider approaches to provide a higher level of treatment to these bypasses. Such treatment improvements may include the addition of chemical enhancement to the existing primaries or a parallel enhanced sedimentation or filtration technology. Also, CRW must provide an analysis of expanding treatment through the secondary treatment beyond the current 45 MGD.
28. Section 9 describes CRW’s proposed approach to Plan implementation via an adaptive management strategy. This strategy would rely on two “evaluate and adapt” points within the 20-year planning horizon: one at year 10 and another at year 15.<sup>12</sup> This section needs to be expanded and include discussion of the role of EPA and PADEP in the process, as well as consider adding an evaluate and adapt point at year five.
29. Section 9.2.2.1 discusses pilot and demonstration projects. CRW discusses these projects in a general, and limited information is provided about these projects. CRW mentions that one (of seven) identified pilot project involves the installation of GI in four local parks, but does not discuss this idea any further. CRW needs to provide more detailed information regarding all seven pilot projects.
30. Section 9.2.2.3 discusses development-driven source control opportunities. CRW discussed possible future stormwater regulations, and CRW must provide information on whether adoption of such regulations is likely, and if so, the expected timeline for adoption.
31. Section 10 presents CRW’s Post-Construction Monitoring Plan (PCMP). CRW proposes a two-part PCMP. The first part of the PCMP process will involve annual monitoring to gauge progress and impacts, with the results of that monitoring reported in the annual Chapter 94 reports. The second part of the PCMP process involves a more comprehensive monitoring effort at approximately year 10. CRW will submit the results of this year 10

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<sup>12</sup> The Plan is somewhat inconsistent regarding assessment points. It states that a five-year cycle will be used, but then notes that the first evaluate and adapt plan (EAP) would take place in year 10.

monitoring effort, presumably to both EPA and PADEP. CRW must address the comments in items a – e below.

- a. The PCMP does not contemplate detailed monitoring or reporting at the end of the proposed 20-year planning horizon, as it should.
- b. The PCMP does not identify what performance criteria will be used to assess compliance; however, Section 11 indicates that percent capture will be the “primary metric for compliance.” The 1994 CSO Control Policy requires that a post construction water monitoring program be adequate to verify compliance with water quality standards and protection of designated uses as well as to ascertain the effectiveness of CSO controls.
- c. The Plan contemplates limited flow monitoring to support model validation/recalibration, but must include more.
- d. The Plan mentions model validation, but does not adequately discuss what will constitute validation, such as demonstration of a degree of calibration at least as good as achieved prior to use of the model to support LTCP development.
- e. The Plan states that water quality monitoring will be carried out by “partnering with PADEP.” Such a statement could be interpreted as meaning that absent such “partnering” no water quality monitoring will be carried out. The 1994 CSO Control Policy specifically requires the permittee to conduct water quality monitoring to ensure compliance with water quality standards.

32. Section 11 summarizes the Recommended Plan and Implementation Schedule.

- a. The Recommended Plan Overview (Section 11.1) focuses on the amounts of money CRW is willing to expend (“up to \$113 million...for priority projects...”) rather than committing to the implementation of specific projects that will meet the requirements of the PCD or the 1994 CSO Control Policy and is thus not consistent with the PCD or 1994 CSO Control Policy. The LTCP must be revised to correct this.
- b. Because of the amount of resources CRW proposes to dedicate to system rehabilitation, CSO capture will increase to only 79% by year 10, and then only another 1% in the following ten years (see Figure 11-1). CRW must re-evaluate its resources and how they are applied to CSO capture.
- c. Sections 11.5.1 and 11.5.3 summarize CRW’s proposed remedial measures for the first and second 10-year periods, respectively. The descriptions provided must be revised to provide detailed design criteria to commit CRW to specific project scopes.





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
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SEP 09 2016

Mr. David Stewart, P.E., BCEE  
Director of Engineering  
Capital Region Water  
212 Locust Street, Suite 500  
Harrisburg, Pennsylvania 17101

RE: U. S. and PADEP v. Capital Region Water and City of Harrisburg  
Civil Action No. 1:15- cv-00291-WWC  
Initial Financial Capabilities Evaluation

Dear Mr. Stewart:

The Environmental Protection Agency (EPA) has reviewed the April 1, 2016 Initial Financial Capabilities Evaluation (FCE) submitted by Capital Region Water (CRW). CRW did not provide a complete Financial Capability Analysis (FCA), as the revised Long Term Control Plan (LTCP) is not yet complete. EPA therefore can only provide comments on the assumptions and/or conclusions used in the FCE. CRW has made assumptions that do not comport with available financial information.

CRW's current 2016 bond rating is A1. This is very good bond rating and qualifies CRW for lower interest rates and possibly a low premium for bond insurance, which would reduce interest rates even further. The interest rate quoted in the FCE for debt issued to the bond market is 5.82%. The current interest rate for A1 Revenue Bonds is about 3.5%, especially in today's low interest rate debt market. According to Moody's Investor Services, an A1 obligor has extremely strong capacity to meet its financial commitments. Also, CRW's Debt Service Coverage is set at 125.00%. This may be higher than needed to support an A1 rating and lower financing costs.

Also, the FCE does not include consideration of the wholesale customers located outside of the City of Harrisburg. Wholesale rates should be included in the financial analysis because wholesale rates reduce the total retail costs applied to the CRW wastewater system. According EPA FCA Guidance, when the permittee's service area involves more than one jurisdiction, the permittee should examine data for each jurisdiction because the wastewater flows from these jurisdictions take up conveyance capacity in the collection system and treatment capacity at the wastewater treatment plant that can be used to treat combined sewerage, and such jurisdiction typically pay for the conveyance and treatment and therefore are another source of revenue.




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CRW submitted its FCE in order to support a lengthy LTCP implementation schedule. EPA is prepared to consider a complete FCA, when submitted, in order to determine an appropriate implementation schedule. At this time, CRW has not provided sufficient information to make such a determination. We look forward to receipt of a more robust FCA in the future and to continuing to work with CRW on these issues, as the LTCP is developed.

Sincerely,



Steve Maslowski  
Enforcement Officer  
NPDES Enforcement Branch  
Water Protection Division

cc: Nancy Flickinger, USDOJ  
Maria D. Bebenek, PADEP  
Victor Landis, PADEP